

67006

CZECH/37-59-1-13/26

On the Mechanism of Making Dislocations Visible at the Surface of Crystals of Iron by Anodic Dissolution

It seems probable that the carbon is precipitated along dislocation lines in the form of cementite. We have, in all cases, observed both mosaic structure and single etch-pits located outside the sub-boundaries. In addition, we observed sharply defined ridges (Fig 4, p 116e) which are probably due to dislocation lines almost parallel with the surface. We assume that a passive layer of  $(\text{CrO}_4)^n$  is formed on the surface of the sample and this layer accounts for the insensibility of the etching process to crystallographic orientation. A very successful method of etching dislocations was the anodic dissolution in a 50% aqueous solution of  $\text{CrO}_3$  at 20 °C and a current density of 0.05 A/cm<sup>2</sup>.

There are 8 figures and 16 references, of which 13 are English, 1 Soviet, 1 Czech and 1 French.

Card  
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ASSOCIATION: Fysikální ústav ČSAV, Praha  
(Institute of Physics, Czechoslovak Ac.Sc., Prague)

SUBMITTED: July 28, 1958

CZECH/34-59-8-1/16

AUTHOR: Šesták, Bohdan, Engineer

TITLE: On the Importance of Metal Single Crystals

PERIODICAL: Hutnické listy, 1959, Nr 8, pp 657 - 659

ABSTRACT: Paper presented at the Working Meeting on Single Crystals, organised by the Secretariat of State Research Plan in Liblice, January 28-29, 1959. Single crystals of metals are an indispensable tool in investigating properties of materials with special characteristics, the preparation of which would be excessively expensive by conventional metallurgical methods. Theoretical studies, particularly those based on solid-state physics, are important and for these the possibility of preparation of single crystals with an ideal lattice or with a lattice distorted in a specifically required way is essential. The necessity is emphasised of studying phenomena occurring during solidification and of evolving new methods of preparation of high-purity metals, improving methods of melting without crucibles and developing experimental equipment for growing crystals from the melt and also investigating the microphysical processes during recrystallisation. Growth of ✓

Card1/2

On the Importance of Metal Single Crystals

CZECH/34-59-8-1/16

metallic crystals from the vapour phase is an important problem; such a procedure enabled, for the first time, the production of single crystals (whiskers) of a strength of about  $1\ 000\ kg/mm^2$ . One of the first practical tasks of physical study of metals is to obtain such strength on a commercial scale. The practical application of single metal crystals should be considered, for instance - production of materials from whiskers joined together. There are 1 figure and 17 references, 13 of which are English, 1 French and 3 Czech.

ASSOCIATION: Fysikální ústav ČSAV, Praha (Physics Institute of the Czechoslovak Ac.Sc., Prague)

SUBMITTED: March 20, 1959

Card 2/2



CZECHOSLOVAKIA/Solid State Physics - Crystal Morphology.  
Abs Jour : Ref Zhur Fizika, No 4, 1960, 8779

Author : Sestak Bohdan  
Inst : Physics Institute Czechoslovak Academy of Sciences,  
Prague, Czechoslovakia

Title : On the Mechanism of Rendering Visible Dislocations on  
the Surface of Iron Crystals by Anodic Dissolving  
Orig Pub : Ceskosl. casop. fys., 1959, 9, No 1, 86-93

Abstract : The paper contains further results of the investigation  
of dislocation, made visible anodic dissolving on the  
surface of single crystals of Fe with a silicon additive.  
The effect of crystallographic orientation of the surface  
is investigated, the influence of carbon is verified, and  
processes on the anode are investigated. A mechanism is  
described of dissolving the crystal and a new more

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... of making dislocations visible is  
posed.

Card 2/2

ŠESTÁK, B.

425 b

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Rendering visible dislocations on the surface of iron crystals by anodic dissolution. Bohdan Šesták (Czech. Akad. Sci., Prague). *Czechoslov. J. Phys.* 9, 34, 6-47 (1959) (in English).—The author presents further ext. tl., results on dislocations which are rendered visible by anodic dissoln. on the surface of single crystals of  $\alpha$  Fe. The influence of the crystallographic orientation of the surface is investigated, the effect of C is confirmed, and the anodic process is studied. The mechanism of dissolu. of the crystal is given and a new, more suitable method of rendering dislocations visible is derived. A. Klemheller

TA  
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SESTAK, B.

"Electrolytic polishing of test specimens in the mixture of orthophosphoric and chromic acids."

HUTNICKE LISTY. Brno, Czechoslovakia, Vol. 14, March 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, September 1959.  
Unclassified

SESTAK, B.

Distr: 482c(m)

The distribution of dislocations in silicon-iron single crystals grown from the melt. B. SESTAK (Czechoslovak Acad. Sci., Prague). Czechoslov. J. Phys. 10, No. 2, 91-103 (1960)(In English).—The distribution of dislocations in a crystal of an Fe-4.2% Si alloy prepnd. from the melt is studied microscopically and by x-ray diffraction after rendering the dislocations visible by anodic soln. The dislocations also are studied inside the crystal by successively grinding the surface. The d. of the dislocations inside the blocks is detd. by calcn. from photomicrographs; the d. of the dislocations forming the boundaries between the blocks is detd. by measuring the angles between the lattices of neighboring blocks. The dislocations are distributed very unevenly in the crystal and most of them form complicated boundaries of blocks like those observed with ionic crystals. The distribution of dislocations is discussed also from the point of view of their formation; conclusions are reached as to the prepn. of single crystals having a smaller number of dislocations. 20 references. A. Kremheller

4  
MTC (JG)

BECVAR, J.; KLIKA, R.; SOMMER, B., inz.; SESTAK, Bohdan; KNFOVEC, L.

Information on metallurgy. Hut listy 16 no.11:829-836 N  
'61.

SESTAK, Bohdan

Experimental methods for the study of dislocations. Pekroky fys pev  
latek 6:119-198 '61. (EEAI 10:9)

1. Fyzikalni ustav Ceskoslovenske akademie ved.

(Dislocations in crystals)

HRBEK, A.; CERNY, V., inz.; PUNGOCHAR, Z., inz.; BECVAR, J., inz.; KECLIK, V.,  
inz.; TICHOPADOVA, E., inz.; KREMER, R., inz.; ZIDEK, M., inz.;  
TEINDL, J.; SESTAK, B., inz.

Information on metallurgy. Hut listy 17 no.12:887-902 D '62.

PUNCOCHAR, Z., inz.; BENDA, O.; CHVOJKA, Jan, inz.; CHVATAL, V.; HREEK, A.;  
KRUMNIKL, F.; HOREJS, S., inz.; TEINDL, J.; SESTAK, B.

Information on metallurgy. Hut listy 16 no.8:596-605 Ag '61.

SESTAK, B.; LIBOVICKY, S.

Dislocations in Fe- $\frac{3}{7}$  Si alloy single crystals deformed at  
a higher rate. Chekhosl fiz zhurnal 13 no.4:266-271 '63.

1. Fyzikalni ustav, Ceskoslovenska akademie ved, Praha.

SESTAK, Bohdan

"Science of metals" by Friedrich Eisenkolb. Reviewed by Bohdan Sestak. Pokroky mat fyz astr 8 no.2:95 '63.

BESTAK, Bohdan, inz.

Metallography on the atom level. Hut listy 18 no.7:506-  
507 J1 '63.

1. Fyzikalni ustav, Ceskoslovenska akademie ved, Praha.

SESTAK, Bohdan

Dislocations in a cubic body-centered lattice. Cs cas  
fys 13 no. 4: 287-300 '63.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

SESTAK, Bohdan

Study of crystal lattice defects and the physics of the mechanical properties of metals in France. Cas fys. 5 no. 3: 282-285 '65.

1. Institute of Physics of the Czechoslovak Academy of Sciences, Prague. Submitted November 11, 1964.

SESTAK, B.

Information on the study trip to the German Federal Republic.  
Cs cas fys 12 no. 2:194-195. '62.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

Geodetický, P.

"A simplified calculation of an error in distance and a proposal for the introduction of a traverse in direct chains of polygons."

p.h.l. (Geodeticky / Kartograficky Obzor, Vol. 4, no. 3, Mar. 1958, Praha, Czechoslovakia)

Monthly Index of Last Technical Accession (MTA) IC, Vol. 7, No. 3, 1958

Sesták, F.

F. Sesták

Chemical technology of leather manufacture, II  
A bőrgyártás kemalai technológiája, II.  
Budapest, 1934. Könnyűp. Kladr. 29 p., HU 34.-

97920

S/194/62/000/011/007/062  
D201/D308

AUTHORS: Martinek, Miloslav and Šesták, František

TITLE: A multiple contact camera

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 11, 1962, 39, abstract 11-1-78yu (Czech. pat.,  
cl. 42m, 14, 43a, 41/02, no. 99543, May 15, 1961)

TEXT: A construction of a multi-contact perforated tape or card  
readout camera is proposed. Steel moving contacts (MC) are placed  
at a moving reversible cassette and retained in place by the per-  
manent magnet, magnetizing the perforated plate of the magnetic  
circuit, through which the pins of the MC pass. The MC are connec-  
ted to the common output of the readout supply system. [Abstrac-  
ter's note: Complete translation.] ✓B

Card 1/1

SESTAK, J.

"Foundation of the main block of the electric-power plant in Opatovice nad Labem." p. 125

POZEMNI STAVBY. Praha, Czechoslovakia, Vol. 7, No. 3, March, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.  
Uncl.

SATAVA, Vladimir; SESTAK, Jaroslav

Effect of the setting temperature on the structure and  
strength of plaster of Paris. Silikaty 6 no.2:178-183  
'62.

1. Katedra technologie silikatu, Vysoka skola chemicko-  
technologická, Praha.

SESTAK, Jaroslav

Influence of thermal phenomena on the accuracy of kinetic data  
acquired by the thermogravimetric method. Silikaty 7 no.2:125-  
134 '63.

1. Katedra technologie silikatu, Vyšška škola chemicko-technologicka,  
Praha.

SATAVA, V., doc. inz. dr.; SESTAK, J.

Kinetic analysis of thermogravimetric measurements. Silikaty  
8 no. 2:134-147 Ap '64.

1. Chair of Silicates, Higher School of Chemical Technology,  
Praue (for Satava). 2. Institute of Solid State Physics,  
Czechoslovak Academy of Sciences, Prague (for Sestak).

L 41864-65

AM5008923

BOOK EXPLOITATION

Z/ 18  
BT

Sestak, Milen

Recognition of rockets, airplanes, tanks and other combat techniques (Rozpoznavani raket, letadel, tanku a jine bojove techniky) Prague, NV, 1964. 453 p. illus., biblio., index. 13,000 copies printed.

Series note: Kniznice vojenske techniky, sv. 31

TOPIC TAGS: missile recognition, aircraft recognition, tank recognition, armored vehicle recognition, commercial aircraft recognition, artillery recognition, hand arms recognition, bridge-laying tank, radar

PURPOSE: This book is intended for members of the Armed Forces to help them to recognize rockets, aircraft, tanks, and other combat equipment of Western countries.

COVERAGE: Such typical Soviet combat equipment as rockets, aircraft, helicopters, and tanks are briefly described in the introduction. The book covers in detail American strategic missile systems, as well as the tactical rocket systems, anti-tank, ground-to-air, air-to-air, and air-to-ground missile systems of the United States and western countries. The book deals also with American and western-bloc armored tanks, artillery, and other combat equipment.

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2. Aircraft engineering -- 99
3. Armored tank engineering -- 257
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5. Hand arms and antitank arms -- 351
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SUB CODE: MS

SUBMITTED: 0000064

NE REF SC#: 000

OTHER: 000

Card 2/2 M

SESTAK, Miroslav, inz.

Problem of evaluating the qualification of head workmen on  
collective farms. Prace mzdna 12 no. 8:367-371 Ag'64

1. Research Institute of Agricultural Economy, Prague.

SESTAK, Ota, inz.

Renovation of bronze and brass bushings by clamping.  
Stroj vyr ll no. 12: 613-615 '63.

1. VOZ Bludovice u Noveho Jicina, zavod 12. sjezdu  
Komunistické strany Československa.

YUGOSLAVIA

POP-CENIC, S.; PUJIN, D.; ZIGIC, B.; SESTAK, V.; PUACA, V. and VUCKOVIC, M. FABEG, Belgrade; Veterinary Center (Veterinarski centar) Sombor; ZZ [Acronym not identified], Kolut; IPK [acronym not identified] "Vrbas", Animal Feed Factory (Fabrika stocne hrane) Vrbas; and PD [acronym not identified] "Elan" Srbobran.

"Effect of Vigofac in Fattening Swine with Varying Levels of Animal and Plant Proteins in their Feed."

Belgrade, Veterinarski Glasnik, Vol 19, No 12; 1965; pp 925-929.

Abstract [ English summary modified]: Study of Pfizer's animal feed additive Vigofac in 7 groups totaling 64 pigs. Improvement in body weight and feed use efficiency was pronounced on animals receiving marginally adequate feed, but was least in those receiving good rations. Three tables, 1 Yugoslav and 3 Western references; ms rec 2 Nov 65.

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- 98 -

SESTAK, Z.

Better utilization of periodicals on bibliography and documentation. p. 441.  
(VÍSTNIK, Vol. 4, No. 7/8, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

SESTAK, Z.

"Paper chromatography of plastid pigments."

p. 153 (Ceskoslovenska Biologie, Vol. 7, no. 2, 1958,  
Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9,  
September 1958

CZECHOSLOVAKIA / Plant Physiology. Photosynthesis.

I

Abstr Jour : Rof Zhur - Biol., No 1, 1959, No 126"

Author : Sostak, Z.

Inst : Not given

Title : Quantitative Determination of Chlorophyll in Algae

Orig Pub : Proslia, 30, No. 2, 138-145, 1958

Abstract : Not given

Card 1/1

SESTAK, Zdenek; CATEK, Jiri

Intensity of photosynthesis and chlorophyll content as  
related to leaf age in Nicotiana sanderae hort. Biologia  
plantarum 4 no.2:131-140. '62.

1. Institute of Experimental Botany of the Czechoslovak  
Academy of Sciences, Praha 6 - Dejvice, Na cvicisti 2.

SESTAK, Zdenek, Sc.C., promovany biolog; BARTOS, Jiri, promovany biolog

Effect of the chlorophyll content reduction on the photosynthesis  
of maize. Rostlin výroba 9 no.2:119-134 F '63.

1. Ustav experimentalni botaniky, Ceskoslovenska akademie ved,  
Praha (for Sestak). 2. Mikrobiologicky ustav, Ceskoslovenska akademie  
ved, Laborator pro vyzkum ras, Trebon (for Bartos).

SESTAK, Zdenek

Factors affecting the accuracy of chlorophyll a and b determination by means of their paper chromatographic separation and colorimetric measurement in eluates. Biologia plantarum 6 no. 2:132-141 '64.

1. Institute of Experimental Botany, Czechoslovak Academy of Sciences, Prague - Dejvice, Na cvicisti 2.

SESTAK, Jiříek, promovany biolog CSc.; ULLMANN, Jaroslav, promovany  
biolog

Comparison of chlorophyl determining methods. Pt. I. Root  
wyr. č. 10 no. 11:1197-1206 N '64.

i. Institute of Experimental Botany of the Czechoslovak  
Academy of Sciences, Prague.

SESTAK, Zdenek; BARTOS, Jiri

Photosynthesis and chlorophyll content in various parts of fodder  
cabbage leaves. Biologia plantarum 4 no.1:47-53 '62.

1. Department of Plant Physiology, Institute of Biology, Czechoslovak Academy of Sciences, Praha and Laboratory for Algae Research, Institute of Biology Czechoslovak Academy of Sciences, Trebon.  
Authors' addresses: Biologicky ustav Ceskoslovenske akademie ved, Na cvicisti 2, Praha 6 - Dejvice (for Sestak) a Biologicky ustav Ceskoslovenske akademie ved, Laborator pro vyzkum ras, Cukelsak 145, Trebon (for Bartos).

POLAND

ULMIK, C.M. and SESTAKOW, D.; II Clinic of Internal Diseases, Istanbul University, Turkey (Z II Kliniki Chorob Wewnętrznych Uniwersytetu w Istanbulu, Turcja).

"The Use of Heparin Loading Test in the Investigation of Hypercoagulability".  
Warsaw, Polski Tygodnik Lekarski, vol 17, No 52, 24 Dec 62, pp 2021-2025

Abstract: [Authors' English summary] "Heparin loading test" was introduced in order to reveal hypercoagulability. It has been shown that antithrombotic effect of heparin was different in normal persons and in arteriosclerotic patients. In arteriosclerotic cases heparin is either consumed or rapidly neutralised. The article contains three diagrams and twenty references (all Western).

u/i

ULTIN, Orhan Nuri; SESTAKOF, Dimitri

The use of the heparin loading test in investigations of hypercoagulability. Pol. tyg. lek. 17 no.52:2021-2023 25 D '62.

1. z II Kliniki Chorob Wewnetrznych Uniwersytetu w Istanbulie; Turcja.  
(HEPARIN) (BLOOD COAGULATION TESTS)

SESTAKOV, G.; TADZER, I.S.

Blood ammonia level in deep cooled dogs. Acta med. iugosl. 14 no.3:  
239-245 '60.

1. Institute of Pathophysiology, Medical Faculty, University of  
Skopje.  
(AMMONIA blood)  
(BODY TEMPERATURE)

ALEKSEYEV, F.K.; ANDRIYUTS, G.L.; ARSENT'YEV, A.I.; ASTAF'YEV, Yu.P.;  
BEVZ, N.D.; BEREZOVSKIY, A.I.; GENERALOV, G.S.;  
DOROSHENKO, V.I.; YESHCHENKO, A.A.; ZAPARA, S.A.; KALINICHENKO, V.F.;  
KARNAUSHENKO, I.K.; KIKOVKA, Ye.I.; KOBOZEV, V.N.; KUPIN, V.Ye.;  
LOTOUS, V.K.; LYAKHOV, N.I.; MALYUTA, D.I.; METS, Yu.S.; OVODENKO,  
B.K.; OKSANICH, I.F.; PANOV, V.A.; POVZNER, Z.B.; PODORVANOV, A.Z.;  
POLISHCHUK, A.K.; POLYAKOV, V.G.; POTAPOV, A.I.; SAVITSKIY, I.I.;  
SERBIN, V.I.; SERGEYEV, N.N.; SOVETOV, G.A.; STATKEVICH, A.A.;  
TERESHCHENKO, A.A.; TITOV, O.S.; FEDIN, A.F.; KHOMYAKOV, N.P.;  
SHEYKO, V.G.; SHEKUN, O.G.; SESTAKOV, M.M.; SHTAN'KO, V.I.

Practice of construction and exploitation of open pits of Krivoy  
Rog Basin mining and ore dressing combines. Gor. zhur. no.6:  
8-56 Je '63. (MIRA 16:7)

(Krivoy Rog Basin--Strip mining)

DOLGOVA, Vera; SERAFIMOV, Nikola; SESTAKOV, Gligor

Thyroid I-131 fixation and perchlorate liberation in hypothermia in dogs treated with propylthiouracil. God.Zborn. Med.Fak,Skopje no.10:140-142 '63.

1. Institut za patofiziologija medicinski fakultet - Skopje  
(Direktor prof. d-r I.S. Tadzer).

CZECHOSLOVAKIA

SESTAKOVA, I.; ZUMAN, P.; HORAK, V.

1. J. Heyrovsky Institute of Polarography, Czechoslovak Academy of Sciences  
(for Sestakova?); 2. Institute of Organic Chemistry, Karlova Univ., Prague  
(for ?)

Prague, Collection of Czechoslovak Chemical Communications, No 2, Feb 1966,  
pp 827-834

"Fission of activated carbon-nitrogen and carbon-sulfur bonds. Part 8:  
Elimination of  $\beta$ -piperidinoethyl phenyl sulfone methiodide and reaction  
of phenyl vinyl sulfone with hydroxyl ions."

CEJKOVA, A.; RYBAROVA, J.; SESTAKOVA, M.

Evaluation of the 1963 campaign sugar beet molasses for the production of citric acid. Kvasny prum 11 no.1:13-16 Ja '65.

1. Research Institute of Distillation and Canning Industry, Prague. Submitted September 30, 1964.

SESTANJ, K. (Zagreb)

Synthesis of 2-iso-propyl-3-methyl-buten-(3)-ol-(1).  
Croat chem acta 33 no.3:127-131 '61.

1. Research Department, "Pliva" Pharmaceutical and Chemical  
Works, Zagreb, Croatia, Yugoslavia.

MANGERON, D.; SESTOPAL, A.F.

Problem of the triangular plate spectra. Studii cerc nec apl  
15 no.2:289-296 '64.

1. Polytechnic Institute, Iasi (for Mangeron). 2. Ukrainian  
Academy of Sciences, Kiev. (for Sestopal). Submitted November  
5, 1963.

SESTERIKOV, B.

Tube voltmeter. n. LC.  
(Radioamater, Vol. 11, no. 2, Feb. 1957. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (NEAL) LC, Vol. 4, No. 7,  
July 1957. Uncl.

SESTERIKOV, B.

A generator of rectangular power. p. 100.

RADIOAMATER. (Savez radioamatera Jugoslavije)  
Beograd, Yugoslavia. Vol. 12, no. 4, Apr. 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

SESTIC, Zlatko, Dr.

Sarkom prostate. Lijec.vjes.77 no.1-2:27-33 Jan-Feb. '55.

1. Iz Urološkog odjela Opće bolnice Rijeke III.  
(**PROSTATE, neoplasms**  
sarcoma following inj.(Ser))  
(**WOUNDS AND INJURIES,**  
prostate, posttraum.sarcoma (Ser))  
(**SARCOMA**  
prostate, following inj.(Ser))

SESTIC, Zlatko

Pyelonephritis gravidarum after previous glomerulonephritis.  
Polski przegl. chir. 33 no.lla:1379-1380 '61.  
(PREGNANCY compl) (PYELONEPHRITIS in progs)  
(GLOMERULONEPHRITIS compl)

MANGERON, D.; SESTOPAL, A.F.

Application of the method of reflectior and the method of expansion  
of Green's function in series of fundamental solutions of the prob-  
lems of technical mechanics vibrations.Bul Inst Politeh 25 no.6:13-28  
N-D '63.

1. Polytechnic Institute, Iasi (for Margeron).
2. Academy of Sciences of the Ukrainian S.S.R., Kiev (for Sestopal).

SESTOPALOV, V. P.  
Mathematical Reviews  
Vol. 14 No. 7  
July - August, 1953  
Mechanics.

Sestopalov, V. P. On a particular solution for a heated boundary layer in a diffusor. Akad. Nauk SSSR. Prikl. Mat. Meh. 16, 613-616(1952). (Russian)

Consideration is given to the laminar, incompressible, thermal boundary layer developed near the leading edge of a wedge. Applying the known solution for the velocity boundary layer, the thermal equation including the effects of viscous dissipation is reduced by suitable change of independent variable to the ordinary hypergeometric differential equation. The formal solution of this in the general case considered is set forth. As the hypergeometric function parameters depend algebraically on the thermal diffusivity of the fluid, a treatment of a numerical solution by use of a few terms in the series is considered for a special application and shown to be satisfactory.

N. A. Hall.

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① prop.

Sestopalova, S. A.

5950

THE RaC  $\gamma$ -RAY SPECTRUM. B. S. Dzhalepov and S. A. Sestopalova (Academy of Sciences of the U.S.S.R., Moscow).

Nuovo cimento (10) 3, Suppl. No. 1, 54-60(1956). (In English)

The modifications made to the gamma spectrometer (ritron) to reduce the halfwidth of the lines and to permit the separation of the spectrum into its components are described. The modified instrument is called an elotron. The experimental curve obtained for the RaC  $\gamma$  spectrum and the correction made are discussed. (See Nuovo cimento (10) 3, Suppl. No. 1, 49-53(1956).) (F.S.)

69 pmk

pmk xx

SESTOPEROV, G.

"Lessons from three years of oak seeding by the hill method." Tr. from the Russian.  
p. 17. (ANALELE ROMANO-SOVIETICE. SERIA SILVICULTURA-INDUSTRIA LEMNULUI SI A HARTEL,  
Vol. 7, seria a II-a, no. 14, July/Aug. 1952. Bucuresti.)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress  
August, 1953, Uncl.

L 9934-66	EWT(m)/EWP(j)	JW/RM	
ACC NR: AP6003385	4456	SOURCE CODIN:	CZ/0043/65/060/007/0559/0569
AUTHOR: Singliar, Michal - Shingliar, M. (Engineer); Volek, Imrich (Engineer); Sestrienkova, Marta - Sestriyenkova, M. (Engineer) 46			
ORG: Petrochemical Research Institute, Novaky (Vyskumny ustav pre petrochemiu) B			
TITLE: Identification of alcohols found in an octanol fraction, prepared by aldolization of crotonaldehyde			
SOURCE: Chemicke Zvesti, no. 7, 1965, 559-569			
TOPIC TAGS: alcohol, quantitative analysis, aldehydes, gas chromatography, ir spectroscopy, hydrogenation			
ABSTRACT: The alcohols investigated had a chain of 4 to 8 carbons. The identification of individual fractions was made by means of chemical analysis, gas chromatography, infrared spectroscopy, and by hydrogenation. A table showing elution periods for various aromatic chain alcohols and acid was prepared. The study was undertaken to determine if it was possible to prepare linear chain alcohols by crotonaldehyde condensation, and by hydrogenation of the resulting aldols. The reaction mixture was separated into individual fractions in a rectification column before the analysis was made. It was found by means of gas chromatography that the fraction C sub 8 - C sub 12 had many components. The conditions for favoring the straight chain alcohols production are discussed. Orig. art. has: 6 figures and 4 tables. [JPRS]			
SUB CODE: 07 / SUBM DATE: 27Feb65 / ORIG REF: 003 / OTH REF: 041 / Sov REF: 004 Card 1/14			

*Sestrorskij, B. V.*

*B. V. Соколовой,*

*А. А. Грибко*

*Исследование динамических свойств Ш-вольновода*

*11 июня*

*(с 18 до 22 часов)*

*Н. А. Кузьмин*

*Следование потенциальных функций гуравицкой амплитудной модуляции в мортирогальской архимедовой системе не содержит, штуков которые не имеют от какой координаты*

*М. П. Кирякин*

*Оптимальная форма края волновода в условиях многополосности*

*Ю. М. Ильин*

*Теоретическое исследование плавного изгибателя волн H<sub>11</sub> в волноводе круглого сечения*

*Р. Е. Багров*

*Экспериментальный анализ электромагнитного поля после волноводных переходов, содержащих кратчайшее сечение*

*В. П. Шестопалов*

*Дисперсионные свойства в пространственной решетке спирального волновода, имеющего в качестве диэлектрическую среду*

*12*

*Report submitted for the Centennial Meeting of the Scientific Technological Society of  
Radio Engineering and Electrical Communications M. A. B. Popov (VNCB), Moscow,  
8-12 June, 1959*

*В. СЕСТРО РЕКТОР МИНИСТЕРСТВА ПРИБОРОВ*

*Руководитель: В. В. Грибко*

*9 июня*

*(с 10 до 16 часов)*

*А. А. Маслов*

*Новые полупроводники и приборы для радиотехнической аппаратуры*

*Р. Е. Соколовой,*

*М. В. Дубченко*

*Новый полупроводник на основе тио-фосфора — радиодиод туннельного*

*Т. Н. Аксаков,*

*А. Н. Петренко*

*Работа дифракционного транзистора при большом сопротивлении*

*Ю. Н. Боргунов*

*Первый проект широкополосного линейчатого диодного прибора*

*9 июня*

*(с 18 до 22 часов)*

*13*

AM4016861

BOOK EXPLOITATION

S/

Kukharkin, YEvgeniy Stepanovich; Sestroretskiy, Boris Vasil'yevich

Electric strength of waveguide devices (Elektricheskaya prochnost' volnovodnykh ustroystv) Moscow, "Vysshaya shkola," 63. 0451 p. illus., biblio. 3000 copies printed.

TOPIC TAGS: microwave discharge, microwave antenna, breakdown strength, dielectric strength, microwave discharge arc, supersonic aircraft radio reception, supersonic aircraft: radar

PURPOSE AND COVERAGE: The book topics are the theory of discharges at microwave frequencies; equipment and procedures for determining the electric strength of antenna and waveguide devices; the effect of wavelength, off-duty cycle, pulse duration, discharge gap length, and pressure on the discharge voltage in air; and calculations of the discharge power of different waveguide devices. A procedure is proposed for designing waveguide filters for a specified operating

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AM4016861

power, and the conditions are given for the onset of thermal ionization and its effect on radio-wave propagation in objects flying within the atmosphere at supersonic speed. The book reviews systematically many articles in the Soviet and non-Soviet periodic press, and also work by the authors. It is intended for designers of waveguide apparatus and for scientific workers, engineers, instructors, and students interested in the foregoing problems. Chapters I, II, V, and VI were written by Ye. S. Kukharkin, Ch. IV by B. V. Sestroretskiy, and Ch. III is jointly written.

TABLE OF CONTENTS [abridged]:

Introduction -- 3

Ch. I. Physics of electric discharge at microwave frequencies -- 7  
Ch. II. Discharge voltage of air in a homogeneous field at microwave frequencies -- 53

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Ch. III. Discharge power of waveguide devices -- 95  
Ch. IV. Design of waveguide filters for a specified operating  
power -- 165  
Ch. V. Effect of Thermoionization produced during high-speed flight  
on the transmission and reception of radio waves -- 289  
Ch. VI. Equipment and procedure for experimentally determining the  
electric strength of antenna-waveguide devices -- 305  
Appendices -- 344  
Literature -- 445

SUB CODE: EE, SP

SUBMITTED: 27Feb63

NR REF Sov: 041

OTHER: 122

DATE ACQ: 10Dec63

Card 3/3

L 55225-65

ACCESSION NR: AT5004891

S/2657/

4/000/012/0032/0057

621.382.14.2

AUTHOR: Sestroretskiy, B. V.; Liberman, L. S.

//  
B+1

TITLE: Theory of shf semiconductor-diode switches

SOURCE: Poluprovodnikovyye pribory i ikh primeneniye; sbornik statey, no. 12, 1964, 32-57

TOPIC TAGS: semiconductor diode, semiconductor diode switch

ABSTRACT: A general method of analysis of shf semiconductor-diode switches is proposed. One-diode switches are considered, and optimal conditions for a switch operating at a specified frequency are found. The power is switched by changing the capacitance and resistance of the p-n junction by application of an external voltage. By regarding the one-diode switch as a reversible reactive lossy six-pole network, general formulas (39 and 40) are developed for the losses inserted by the switch in its closed and open states. The relation (41)

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ACCESSION NR: AT5004891

between the above losses characterizes the switch performance. The performance-determining parameters can be measured if the diode is tested under these three conditions: no-load, short-circuit, and a definite load. Orig. art. has: 13 figures and 78 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENGL: 00

NO REF SOV: 000 OTHER: 000

SUB CODE: EC

Card 2/2

L 4096-66 EWT(1)/EWA(h) GG

ACC NR: AP5024994

SOURCE CODE: UR/0286/65/000/016/0058/0058

44  
5INVENTOR: Bastroretskiy, B. V.; Yakuben', L. M.; Sin'kov, Yu. A.

ORG: none

TITLE: Shf semiconductor switching element<sup>25</sup> Class 21, No. 173849

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 58

TOPIC TAGS: electronic switch, switching circuit, superhigh frequency

ABSTRACT: This Author Certificate introduces an shf semiconductor switching element (see Fig. 1) with three leads. The middle lead serves to supply signals. In order

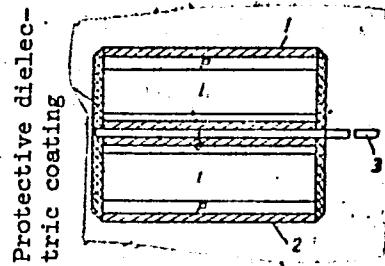


Fig. 1. Shf semiconductor switching element

1 and 2 - Metal contacts with P-windings; 3 - middle lead.

UDC: 621.382.233:

621.372.837

Card 1/2

L 4096-66

ACC NR: AP5024994

to increase the range of operation at pulses of up to  $10^4$  w, the element is built in [JR]  
the form of a nipin structure. Orig. art. has: 1 figure.

SUB CODE: EC/ SUBM DATE: 04Feb64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4129

BVK  
Card 2/2

SASULKA, S.

The human factor is most important. p. 212 (Sbornik Rada Lesnictvi Vol. 4, no. 4,  
1957 Praha)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

SEŠULKA, Bohumil.

Model farms of the Academy of Agricultural Sciences, leaders in  
the new technology. *Vestnik CSAZV* 8 no. 1:40 '61. (EEAI 10:5)  
(Czechoslovakia---Agriculture)

TEMPIR, Zdenek, inz. CSc.; SESULK, Bohumil

From the activities of the Czechoslovak Museum of Agriculture.  
Vest ust zemedel 12 no.4:188-195 '65.

1. Institute of Scientific and Technical Information of the  
Ministry of Agriculture, Forestry, and Water Resources, Prague.

Sešulka, V.

V 3173. THE DISTILLATION RELATIONS BETWEEN 10% DISTILLATION CURVE AND  
THE 10% VAPOR PRESSURE IN THE BOILING TEMPERATURE. L. T. S. AND  
T. H. YEH. JOURNAL OF POLYMER SCIENCE, VOL. 16, NO. 3, 1955, P. 10.  
RECEIVED JULY 15, 1955. RECORDED JULY 15, 1955.  
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PRINTED IN U.S.A. BY THE AMERICAN POLYMER SOCIETY.

**APPROVED FOR RELEASE: 08/23/2000**

CIA-RDP86-00513R001548210005-5"

SESVÍKA, V.; LAVÍKA, S.

"Correlation among curves of ten per cent distillation and curves of balanced flash distillation of resins."

PALIWA. Praha, Czechoslovakia. Vol. 35, no. 9, Sept. 1955.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclassified

CZECHOSLOVAKIA/Organic Chemistry. Organic Synthesis.

G-2

Abs Jour: Ref Zhur-Khim., No 24, 1958, 81510.

Author : Landa S., Sesulka V.

Inst :

Title : The Products of Condensation from the Action of Sulfuric Acid Upon Acetone.

Orig Pub: Sb. czechos. khim. rabct, 1957, 22, No 6, 1859-1865.

Abstract: See R. Zh. Khim., 1958, 39540.

Card : 1/1

SEŠUÍKA, VILEM

Condensation products formed from acetone and sulfuric acid. Štefaník, Landolt and Vilem (Univ., Prague). Česk. Čas. Fys. 61, 113-117 (1956). Acetone (2200 ml.) and  $\text{H}_2\text{SO}_4$  in 16000 ml. according to Adams and Hefford (Can. J. Res. 19, 17) gave 3050 ml. lower-boiling product. Higher-boiling product was cooled to -60° and 5,1,2,3-Me<sub>4</sub>C<sub>6</sub>H<sub>3</sub> (III), m.p. 5-6°, and 1,4-C<sub>6</sub>H<sub>4</sub>Me<sub>2</sub> (II), m.p. 37.5-38.2°, were isolated. The distill. residue (315 g.) passed over 4000 g. Al<sub>2</sub>O<sub>3</sub> with benzene, frozen, and the product (2.3 g.) and EtOH gave 2.8 g. const. C<sub>6</sub>H<sub>4</sub> (IV) (b.p. 116.0-117.0°/10 mm Hg); m.p. 71.8°. It yielded on careful rectification 0.6 g. acetone which was collected by distillation at 100°/10 mm Hg.

by the action of  $\text{H}_2\text{SO}_4$  (Tech. 5%). Condensed  $\text{H}_2\text{SO}_4$  gave 3050 ml. lower-boiling product. Higher-boiling product was cooled to -60° and 5,1,2,3-Me<sub>4</sub>C<sub>6</sub>H<sub>3</sub> (III), m.p. 5-6°, and 1,4-C<sub>6</sub>H<sub>4</sub>Me<sub>2</sub> (II), m.p. 37.5-38.2°, were isolated. The distill. residue (315 g.) passed over 4000 g. Al<sub>2</sub>O<sub>3</sub> with benzene, frozen, and the product (2.3 g.) and EtOH gave 2.8 g. const. C<sub>6</sub>H<sub>4</sub> (IV) (b.p. 116.0-117.0°/10 mm Hg); m.p. 71.8°. It yielded on careful rectification 0.6 g. acetone which was collected by distillation at 100°/10 mm Hg.

SESULKU, Vilem

"New methods of gaseous hydrocarbon mixture separation"  
by V.A.Sokolov. Reviewed by Vilem Sesulka. Chem prum 13  
no.11:599-600 N°63.

1. Vysoka skola chemickotechnologicka, Praha.

KRASIKOVA, V.A.; SESYAGIN, S.M.

Observations on the spawning of the whitefish *Coregonus nasus* (Pall.) in the Rybnaya River (the Pyasina River system). Vop. ikht. 2 no.2:295-298 '62. (MIRA 15:11)

1. Sibirs'koye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh), Krasnoyarsk.

(Rybnaya River (Krasnoyarsk Territory)--Whitefishes)

G.S. [deceased]  
Calculating the heating of a semibounded wall (with a  
temperature gradient in the initial moment) and a constant  
surface temperature. Izv. vys. ucheb. zav.; chern. met.?  
(MIRA 17:3)  
no.2:164-172 164.  
1. Dnepropetrovskiy metallurgicheskiy institut.

SESYUK, G.S. [deceased]

Calculating the heating of a semibounded wall (with a temperature gradient in the initial moment) and a constant surface temperature. Izv. vys. ucheb. zav.; chern. met. 7 no.2:164-172 '64. (MIRA 17:3)

1. Dnepropetrovskiy metallurgicheskiy institut.

*Sesayuk, C.S.*

16(5)  
AUTHORS:  
Iashitkin, V. I., Dzhurovsky, N. A. 507/165-56-1-6/50  
Iashitkin, V. I., Oyarov, A. M., Sotnikov, Ye. M.  
Sagaym, G. S., Ozerovskiy, Ye. M.

TITLE:  
Conversion of High-phosphorus Pig Iron in Oxygen-blast Con-  
verters (Period 1956-1957). Communion 1. Conversion of High-  
phosphorus Pig Iron in a Converter With Combined Lateral Blast  
(Sobibachivayi, I. Paretskii, V. Sotnikov, Ye. Ozerovskiy, Ye. Ozerovskiy  
tare v bol'sova kombinatsiyu dnu yera)

Nauchnoe doklady vysokoy shchol'j. Metallurgiya, 1959, Nr. 1.

Nauchnye doklady vysokoy shchol'j. PP 25-27 (DASH)

pp 25-27 (DASH)  
The results obtained by the investigations carried out in the steel smelting laboratory of the DASH from 1956-1957 are presented in the article. The collaborator of the IChM is Ulrich associated in the writing of the case histories of the blast, and in the IChM section and analysis of metal and slag samples. In the IChM section in collaboration with the DASH the investigation of cast iron in the laboratory furnace was investigated. Cast iron in the laboratory furnace converter was adapted to Kercu pig iron. The 0.9-1.0 t laboratory converter had a capacity of this purpose the 0.9-1.0 t laboratory converter had a capacity of combined lateral blast. The converter had a capacity of

Card 1/4

507/163-59-1-6/50  
Conversion of High-phosphorus Pig Iron in Oxygen-  
blast Converters. Communion 1. Conversion of High-phosphorus Pig Iron in  
a Converter With Combined Lateral Blast  
The depth of the metal bath was 375 mm. Pig iron or  
the following composition was converted: 3.4% C-3.6% Si,  
0.65% Mn, 0.05% P, 0.013% Mn, 1.10-0.5% Si, 0.08-0.20% S,  
1.3-1.5% P, 1.0-1.3% Mn. The pig iron has been melted in a cupola fur-  
nace. Reduction to conversion is had a temperature of 15-15  
1,140-1,200°C. Lime stone was added to a percentage of the charge weight. A special device permitted to aid the con-  
dition of the charge weight. A moment without interruption of the con-  
tinuing agents to any moment without interruption of the blast. In the experiments with combined lateral blasting  
the air was supplied to the converter through 4 tuyeres with  
a diameter of 40 mm at a pressure of 0.150-0.155 atmospheres  
atmospheric pressure by a centrifugal blower with two special  
50-60 rpm. The oxygen was supplied through two special  
50-60 rpm. The oxygen was supplied through two special  
copper tubes mounted within the tuyeres under 6-10 atmospheres  
excess pressure. The flow rate of oxygen varied between  
1.7-4.2 m<sup>3</sup>/min the oxygen consumption per ton being 15-25 m<sup>3</sup>.  
In this investigation special interest was given to problems  
of slag formation and of early dephosphorization. Several

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507/163-59-1-6/50  
Conversion of High-phosphorus Pig Iron in Oxygen-  
blast Converters. Communion 1. Conversion of High-phosphorus Pig Iron in  
a Converter With Combined Lateral Blast  
The best results were obtained with the second series where the orientation  
of the tuyeres was reduced to 0-5° (from the horizontal) and  
the flame rate was reduced by closing ten tuyeres. These  
experiments lead to quite repeatable results. A comparison with  
information from publications (Beta 6-10) showed that the  
formation of slag with a high solution value and the oxidation  
of the phosphorus proceeds much faster in a converter with a  
combined air-oxygen blast than in a converter with combined  
bottom or lateral air blast. In converters with a P<sub>2</sub>O<sub>5</sub> content  
blast it is possible to produce a slag with a low  
melting the specifications and an almost steel, with a low  
nitrogen and phosphorus content (<0.05%). without any consider-  
able overheat. The experiments showed that the following  
assumes must be taken in order to obtain fast slag formation  
and dephosphorization: 1) During the initial stage of  
process (25-50% of the total time) the blast must be  
directed onto the metal surface or into the upper layer of the bath.

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Conversion of High-phosphorus Pig Iron in Oxygen-Blast Converters. Communication I. Conversion of High-phosphorus Pig Iron in a Converter With Combined Lateral Blast

Sov/161-59-1-6(53)  
2) A well calcined limestone must be used and it must be given in portions at certain intervals. There are 10 references, 5 of which are Soviet.

ASSOCIATION: Dnepropetrovsky metalurgicheskiy institut (Dnipropetrovsk Institute of Metallurgy)  
SUBMITTED: June 5, 1958

Card 4/4

1 Sesiuk, G.S.

16(3) Reportantsky, V. I., Dubrovskiy, Yu. M. Sov/163-59-1-7/50  
 Iapintsev, V. I., Popovov, A. M. Instanter, S. T.  
 Stepan, G. S. Oryshkin, Ye. N.  
 Stepan, G. S. Oryshkin, Ye. N.

TITLE: Conversion of High-phosphorus Pig Iron in an Oxygen-blast Converter

Abstract: (Ferredytyktyotoforatok) Oryshkina v konverte s kislorodnym dymom. Kommunikatsiya II. Konverentsiya olichnoj phosphorus Pig Iron by Top Blasting (doobshchennye IV. Ferredyktyotoforatok) chuguna v konverte s verkhnim kislorodnym dymom.

PERIODICAT: Nauchnyye doklady tsashay shkoly. Metallurgiya, 1959, Nr. 1, pp 28-33 (ussr)

ABSTRACT:

This investigation was carried out with water cooled blast tuyeres with a diameter of 6-10 mm, blasting oxygen with a purity of 91-98 % under 5-8 atmospheres excess pressure into the converter. The rate of oxygen supply varied between 3.5-6.1 m<sup>3</sup>/min, the average oxygen consumption for the last blast was 70 m<sup>3</sup>/ton. Limestone and for some heats pig iron with a basicity constant of 1.520 % were used as a fluxing agent. For the last heats limestone-ore briquettes with an

Abstract: Conversion of High-Phosphorus Pig Iron in an Oxygen-blast Converter. Communication II. Conversion of High-phosphorus Pig Iron by Top Blasting

Top Blasting

A ore content of about 5% were used. The fluxing agents were added in portions, 3 to 4 times in intervals of 1.5-4.0 minutes. All in all 12 experimental heats were prepared. It appeared from the results that the course of slag formation and of dephosphorization in correcting high-phosphorus pig iron in converter with a top oxygen blast are essentially dependent upon the following factors: 1) Upon the iron oxide constituent in the primary slag; 2) Upon the oxygen supply and the rate of oxygen consumption by the heat. Both factors are determined by the circulation in the hearth; 3) Upon the slag and the composition of the slag constituents; 4) Upon the thickness of the solid phase layer in the converter during the initial stage of converting; 5) Upon the temperature conditions during blasting. The experiments showed that 1) If high-phosphorus pig iron is converted in oxygen top-blazing converter the formation of a basic slag with high solution value, which can be brought up to the specified P<sub>2</sub>O<sub>5</sub> content

can be guaranteed at the beginning of blasting (by adding up to

Conversion of High-Phosphorus Pig Iron in an Oxygen-blast Converter. Communication II. Conversion of High-phosphorus Pig Iron by Top Blasting

to 15 % of limestone). By the same way an early dephosphorization may be ensured and thus a steel with a phosphorus content of less than 0.1 % at a high carbon concentration (1.1-1.5 %) can be produced. This may be achieved without using fluxes or rebaking the slag; 2) In converters of such a type carbon steel can be produced from basic converter pig iron with a low phosphorus content (<0.05 %) and a low nitrogen content. This may be achieved by stopping the process at the specified carbon content; 3) The formation of a slag with a high solution value and the oxidation of phosphorus in a converter with combined lateral blasting (with a separate air and oxygen supply) proceed much faster than in converters with a bottom and lateral air blast. There are 1 figure and 2 Soviet references.

ASSOCIATION: Dniproprostroy metallurgicheskii institut (Dnepropetrovsk Institute of Metallurgy)

SUMMITED: June 5, 1958  
 Card 3/5

SESYUK, G.S.

Calculating the heating of a semibounded shell with a  
constant surface temperature and an initial temperature  
distribution according to exponential functions of the  
first order. Izv. vys. ucheb. zav.; chern. met. 6 no.4:  
141-149 '63. (MIRA 16:5)

1. Dnepropetrovskiy metallurgicheskiy institut.  
(Heat—Transmission)  
(Metallurgical furnaces)

KALININ, V.K.; MIRONOV, K.A.; VITEVSKIY, I.V.; NIKIFOROV, B.D.; SESYUNIN,  
V.S.; SOBOLEV, V.M.; ZOROKHOVICH, A.Ye., kandidat tekhnicheskikh nauk;  
VERINA, G.P., tekhnicheskij redaktor.

[Electric circuits of electric locomotives and maintenance of the  
equipment] Elektricheskie skhemy eleketrovozov i ukhod za apparaturoy.  
Moskva, Gos.transp.zhel-dor.izd-vo, 1955. 178 p. (MIRA 8:4)

SESYUNINA, L.I.; MUKHIN, M.V., professor, zaveduyushchiy; BOGDANOV, F.R., professor, chlen-korrespondent Akademii meditsinskikh nauk SSSR, nauchnyy rukovoditel', direktor.

Use of Ruid'ko's apparatus in maxillofacial surgery. Stomatologiya no.4:  
47-48 Jl-Ag '53.

1. Chelyustno-litsevoye otdeleniye Sverdlovskogo instituta vosstanovitel'noy khirurgii, travmatologii i ortopedii (for Mukhin and Sesyunina). 2. Sverdlovskiy institut vosstanovitel'noy khirurgii, travmatologii i ortopedii (for Bogdanov).  
(Jaws--Surgery) (Face--Surgery)  
(Surgical instruments and apparatus)

SETALO, G.

The mechanism of hypothalamic obesity in the rat. Acta physiol.  
acad. sci. Hung. 27 no.4:375-384 '65.

1. Department of Anatomy, University Medical School, Pecs.

SETALO, Gyorgy

Recent data on the neural regulation of the synthesis of adrenalin by the adrenal medulla based upon statistical data on nucleus variations. Kiserl. Orvostud. 14 no.2:174-178 Ap '62.

1. Pecsi Orvostudomanyi Egyetem Anatomiai Intezete.

(ADRENAL MEDULLA anat & histol)

KHIKMATOV, A.Kh.; SL IROV, F.S.

Method of mining thick steeply dipping seams in the Shargun deposit. Ugol' 37 no.9:23-24 S '62. (MIRA 15:9)

1. Shakhtoupravleniye Shargunugol', Uzbekskaya SSR.  
(Sary-Assiya District—Coal mines and mining)

BURSHTEYN, M.P., inzh.; MIKHAYLENKO, M.V., inzh.; SETAROV, F.S., inzh.;  
TSOGOYEV, N.A., inzh.

Use of "igdanit" in composite chamber charges. Vzryv. delo  
no.51/8±133-143 '63. (MIRA 16:6)

1. Uzbekvzryvprom.  
(Explosives) (Blasting)

SETALEV, N. G.

"The Selection of the Parameter of a Stable Mechanical System"

Prik Mat Mech 15, 371-372, 1951

COUNTRY	:	Czechoslovakia	H-33
CATEGORY	:		
ABS. JOUR.	:	RZKhim., no. 20 1959, No. 73494	
AUTHOR	:	Soucek, M.; <u>Setelik, V.</u>	
INST.	:		
TITLE	:	Determination of Wood Pulp Content of Paper by the Chlorination Method	
ORIG. PUB.	:	Papir a celul., 1959, 14, No 4, 85-88	
ABSTRACT : A study of the effects, on the results of determination, of preparation of the sample, composition of paper, duration of reaction, and weight of the sample. A new procedure is proposed for preparation of the sample, which makes it possible to secure more accurate and repro- ducible results. -- From Authors' Summary.			
CARD: 1/1			

Category : USSR/Nuclear Physics - Nuclear Reactions

C-5

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6057

Author : Akhiyezer, A.I., ~~Satenko, A.G.~~

Title : Concerning the Theory of the Deuteron Splitting Reaction.

Orig Pub : Uch. zap. Khar'kovsk. u-nt, 1955, 64, 9-12

Abstract : If the change in the momentum of a deuteron is sufficiently large, as a result of diffraction scattering of rapid deuterons by a nucleus, deuteron splitting is possible. The cross section of the diffraction splitting is approximately  $\pi R_d^2$ , i.e., of the same order as the cross section of the deuteron breakup, observed by Serber (Serber, R., Physical Review, 1947, 72, 1008). Using the known expression for the amplitude of the nuclear reaction

$$\begin{aligned} \Sigma = -2 \left( \frac{m}{\pi} \right)^{1/2} h^{1/2} & \times \Psi(r_p) \Psi_n(r_n) \bar{\Psi}_d(r_n r_p) \times \\ & \times V(r_n - r_p) \delta(r_n - r_p) \end{aligned}$$

and replacing  $r_n$ ,  $r_p$ , and  $\Psi_d = \sqrt{2m/\hbar^2} e^{-ip/r} \psi(r)$ ,  $r_n = r_n - r_p$ ,  $r = (r_n + r_p)/2$ , by the wave function describing the diffraction of protons, neutrons, and deuterons, respectively

Card : 1/2

SETENSKIY, L.N.

The Spatial Problem of the Determination of Standing Waves of Finite Amplitude.  
DAN SSSR, n. Ser. 89, 25-28 (1953)

GONCHAROV, V. S.: ZEMTSCVA, N. M.: KULIK, N. F.: SETERCVICH, II P.

Afforestation - Caspian Sea Region

Forestry on unirrigated soils in the northern Caspian Sea region. Les. khoz. 5 No. 9, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

P.H.A.

Serafim (V.), *Studio o vlivnosti anticheskych mohutel proti houbovi - plizni endemii.*  
 [Study on the efficacy of dry treatments against fusarium - snow mould.]  
 Česk. Bot. 19-20, 1945-46, pp. 36-76, 24 figs., 1946-7. [Received June, 1950.]

Studies were conducted from 1943 to 1946 at the Institute for Plant Protection, Prague-Dejvice, to develop an effective laboratory method for testing the properties of fungicidal dusts against *Fusarium* snow mould [*Culmella nivalis*; see proceeding abstracts] under optimum conditions for the development of the fungus. There were two lines of investigation in the main tests of their efficacy: (1) on totally infected rye grass seed and (2) on an infected agar medium, with determinations of the toxicity, solubility, adherence, absorption, effect on germination, and the size of the 'protective field' (zone of inhibition), or as it is called in the case of the mercury preparations the 'hydrargyrosphere'. Supplementary tests were made to determine the comparative effect of the preparation on uninjected seed, the germinability and initial infection of the grain by *C. nivalis*, and the control of seed infections.

The tests were carried out in Petri dishes covered by sterilized bell jars fitting closely to the outer rim and took ten days at 15° to 17° C. (2° to 3° less during the night).

The seed was inoculated by shaking with dried cultures of *C. nivalis*, or dusting with a conidial suspension, or by soaking for two minutes in a conidial suspension with subsequent drying at 15° to 18°. The inoculated grains were treated in the usual manner with the material to be tested, and placed on agar. The effectiveness of a preparation was evaluated from the infection rate of the grains.

In the infected medium tests the treated rye grains were placed on the culture medium, previously inoculated by spreading a conidial suspension over the whole surface and incubating for 8 to 12 hours at 20°. The grains are spaced in such a way that the effect of the preparation, especially the size and form of the zones of inhibition, are clearly discernible. Most conidia germinate in 3 days and the preparation begins to be effective after 8 to 12 hours, so that observations can be made after 60 to 64 hours.

The size of the inhibition zone or fungicidosphere depends on the rapidity of conidial dissociation and the effectiveness of the dissoziant of the fungicide. It should be measured after five days, because by then all germinating conidia which came into contact with the dissoziated material are believed to be killed. If the fungicidal activity spreads far beyond the margins of the visible inhibition zone the material dissociates gradually. If after five days the visible zone is sterile, regular in shape, the absorption properties. If the sterility and size remain unchanged during the whole test, the material dissociates slowly and is effective.

New [unspecified] preparations tested by the above methods proved effective also in field tests using both grain and soil infection, the snow cover being substituted by paper cartings. But this method, which gave identical results, took nearly a month and the laboratory method, therefore, is more satisfactory.

P.H.A.

*Raf 4 M*

**SETHOPER, (V.) & KRÁL (C. J.).** Závislost aktinomykózy strupovitosti Brambor na poměrech půdních. [The dependence of common scab of Potatoes on soil conditions.] — *Ochr. Rost.*, 22, 3-4, pp. 86-105, 1949. [Russian summary.]

To determine which soil conditions influence the occurrence of common scab [*Actinomyces scabies*: see preceding abstract], 109 soil samples and affected tubers from various parts of Bohemia, Czechoslovakia, were examined [? in 1948]. Actinomycetes were usually active when conditions were unfavourable for the development of *Spongospora subterranea*: see next abstract] and in the absence of *Azotobacter* [R.A.M., 27, p. 41]. They were predominant in light soils with large particles, which mostly did not contain calcium carbonate, but harboured numerous sporulating anaerobic bacteria of the lactic acid group. Soil reaction had no effect on incidence. The anti-microbial and antibiotic activity detected by the authors in 1942 in ultimate soil particles free from actinomycetes, was also demonstrated by Novogradsky and Mme Novogradská (микробиология [Microbiology], 16, 2, 1947; 17, 3, 1948). Calcium carbonate (especially above 0.06 per cent.) decreased the virulence of the pathogenic actinomycetes [cf. next page]. The use of badly stored manure ('straw') greatly increased the incidence and virulence.

*C of Km*

JEROMÍJEV (E.) & SKRNICKÝ (V.). Zkušenosti nabýté při výšlekování vodourosti Brambor k aktinomykóze. [Results of Potato scab resistance tests.] - *Ochr. Rost.*, 22, 5-6, pp. 204-225, 1 fig., 1949. [Russian summary.]

Of eight different strains of *Actinomyces* obtained from scabbed potatoes and soils from various localities in Czechoslovakia, No. 6 agreed closely with *A. scabies* [*R.A.M.*, 26, p. 508], No. 3 with *A. albus* var. *cretaceus* [*ibid.*, 29, p. 241], and No. 5 with *A. bicolor* [*ibid.*, 20, p. 260]. At the Větrov Potato Breeding Institute Nos. 1, 2, 3, 4, 5, 6, and 7 were present, at Havlíčkův Brod Nos. 1, 3, 5, 6, 7, and 8, while at Kestek isolates 1, 1-1, and 1-2 were identical with No. 6 [5 in summary], II with No. 5 (very rare), and III and IV with No. 1. I, I-1, I-2, II, III, IV, 6, and 8 were the most virulent isolates.

In resistance tests carried out in 1947, Krasava, K. Ledvinky, and Bintje were highly susceptible to No. 6, Karát, Marta, and Triumph somewhat less so, while Cardinal was the most resistant. The results of the 1948 tests showed that the various isolates behaved specifically, e.g., No. 3 caused severe infection of K. Ledvinky and Carmen, slight of Bojar, while the other varieties tested (Erstling, Kitting, Cardinal, Krasava, and Triumph) were not attacked; No. 4 infected K. Ledvinky, Bojar, Carmen, and Triumph, and No. 5 Bojar and Triumph, and to a lesser degree K. Ledvinky and Carmen. Cardinal showed a high degree of resistance to all the isolates.

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SETHOFEK (V.) & JERNOLJEV (E.). K odolnosti Bramborovych odré proti Rhizoctonid (Rh. solani). [On the resistance of Potato varieties to *Rhizoctonia solani*.] - *Ochr. Rost.*, 23, 2, pp. 89-106, 7 figs., 1950. [Russian summary.]

Isolations from potato tubers affected by *Rhizoctonia* [*Corticium*] *solani* [R.A.M. 26, p. 508], originating from various localities in Moravia and Slovakia, Czechoslovakia, yielded eight biological forms of the pathogen which differed morphologically in culture. In resistance tests healthy tubers in pots of inoculated soil were placed in a greenhouse at 10° C. Of 16 local varieties (selections of Kekkov) tested none proved resistant, but those which sprouted quickly had mostly a lower infection coefficient. The results showed that the different forms of *C. solani* attack different varieties with varying intensity and vary in their virulence. Simultaneously 80 varieties from world selections were tested for resistance, and although none was resistant those with low infection rates will be investigated further.

SETHOFER, V.

Suitability of polyvinyl chloride wrappers for food preservation,  
(tobe cont')

p. 179  
Vol. 6, no. 4, 1955  
PRUMYSL POTRAVIN  
Praha

SO: Monthly list of East European Accessions (EEAL), LC. VOL. 5, no. 3  
March 1956

SETHOFEK, V.

Suitability of polyvinyl chloride wrappers for food preservation.  
(Conclusion) p. 286. Vol. 6, no. 6. 1955. PRUMYSL POTRAVIN. Praha.

Source: East European Accessions List (EEAL), LC, Vol. 5, No. 3. March 1956.

Parasitology

CZECHOSLOVAKIA

KUBISTOVA, J., SETH, D; Parasitological Institute, Czechoslovak Academy of Sciences (Parasitologicky Ustav CSAV), Prague.

"Propanediolphosphate in the Muscles of Ascaris Lumbricoides."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 121

Abstract: The bulk of the phosphorus in the muscles of *Ascaris lumbricoides* is present as propanediolphosphate. Although this compound was found previously in various animals, it was only in very small amounts, not as the main P carrier. 6 Western references. Submitted at "16 Days of Physiology" at Kosice, 27 Sep 65.

L 02529-67

EWT(d)/EWT(1)/EWT(m)/EWP(w)/EWP(v)/T-2/EWP(k)

IJP(c)

JD/WW/EM

ACC NR:

AR6017u84

SOURCE CODE: UR/0285/66/000/001/0015/0015

AUTHOR: Setin, A. D.; Soyfer, A. M.; Polyanskiy, I. A.; Filekin, V. P.

TITLE: Rigidity variation and damping capacity of a gas turbine engine housing  
with horizontal flanged connection

SOURCE: Ref. zh. Turbostroyeniye, Abs. 1.49.114

REF SOURCE: Tr. Kuybyshevsk. aviat., in-t, vyp. 19, 1965, 183-193

TOPIC TAGS: turbine engine, vibration damping, bending stress, material deformation

ABSTRACT: The rigidity of the gas turbine housing has a strong effect on critical rotor conditions. The authors study the change in rigidity and damping capacity when the housing is deformed in models of gas turbine engine housings with horizontal flanged connection. It is shown that bending deformation in housings of this type may cause slippage which reduces the bending rigidity of the housing and increases power dissipation. This type of housing has a two-phase static deformation cycle which is satisfactorily represented by the static cycle of a composite rod properly designed to act as an equivalent rod for the housing. The reduction in housing rigidity due to slippage is 10-30% of the initial value which gives a dissipation factor  $\psi=0.2-0.6$ . The relative rigidity of the housing and the dissipation factor basically conform satisfactorily to the theoretical relationships. The

Card 1/2

UDC: 621.438-21.001.5

APPROVED FOR RELEASE  
Card 1/2

SMIRNOV, Yu.; SYETIN, V.

A window into the submarine world. IUn. tekhn. 2 no.5:29-32 My '98.  
(MIRA 11:6)  
(Diving, Submarine)

USSR/Human and Animal Morphology - (Normal and Pathological)  
Blood and Organs of Hemopoiesis

S

Abs Jour : Ref Zhur Biol., No 6, 1959, 26168

Author : Brodskiy, V.Ya. Svetina, I.A.

Inst :  
Title : Ultraviolet Microscopy and Cytophotometry of Bone Marrow  
under Normal Conditions and after Roentgen Irradiation.

Orig Pub : Biofizika, 1958, 3, No 1, 92-100

Abstract : Visually and cytophotometrically, the bone marrow of intact mice and mice irradiated with a lethal dose of Roentgen rays (700 r) was investigated in ultraviolet rays. In both cases only cells without morphologic signs of affection were taken into consideration. Aside from total determination of substances absorbing ultraviolet rays, quantitative determination of substances soluble in a cold (0 - 1°) solution of trichloroacetic acid (mostly nucleotides as well as free aromatic aminoacids,

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USSR/Human and Animal Morphology - (Normal and Pathological)  
Blood and Organs of Hemopoiesis

S

Abs Jour : Ref Zhur Biol., No 6, 1959, 26168

some vitamins, etc.) and in hot ( $90^{\circ}$ ) solution of the same acid (RNA and DNA) was conducted. According to obtained data, under normal conditions about 95% of cells have nuclei which absorb intensively ultraviolet rays. The average amount of DNA is about the same in nuclei and is approximately  $5.5 - 6.2 \times 10^{-12}$  g. The amount of RNA in the nuclei of less differentiated cells is greater than in mature ones. The ratio of the amount of nucleic acids to the amount of nucleotides is comparatively constant (1.5-1.8 for the nuclei of cells of myeloid order and 2.5 -3.0 for nuclei of cells of erythroid order). In the first minutes after irradiation, the absorption of ultraviolet rays by nuclei of cells decreases and after 6 months lucid nuclei are prevalent in all forms except normoblasts. With this, the amount of nucleic acids in the nuclei of morphologically-

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